

BUREAU OF ENVIRONMENT

CONFERENCE REPORT

SUBJECT: Monthly SHPO-FHWA-ACOE-NHDOT Cultural Resources Meeting

DATE OF CONFERENCES: October 9, 2014

LOCATION OF CONFERENCE: John O. Morton Building

ATTENDED BY:

NHDOT

Chris Carucci
Sheila Charles
Kevin Daigle
Jill Edelmann
Bob Juliano
Jim Kirouac
Bob Landry
Marc Laurin
Stephen Liakos
Don Lyford

Jim Marshall
Michelle Marshall
Nancy Mayville
Christine Perron
Bill Saffian
David Scott
Trent Zanes

NHDHR

Laura Black
Edna Feighner

Hoyle, Tanner

Josif Bicja
Matthew Low

VHB

Steven Hodgdon
Nicole Benjamin-Ma
Julie Whitmore

Town of Franconia

Susan Retz

Town of Milford

Gary Daniels
Rick Riendeau

Town of Pembroke

David Jodoin

PROJECTS/PRESENTATIONS REVIEWED THIS MONTH:

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October 9, 2014

Stewartstown-Canaan 15838, X-A000(984)

Participants: David Scott, Bill Saffian, Marc Laurin, Kevin Daigle, NHDOT

Continued consultation on the red listed bridge over the Connecticut River (054/163) specifically to discuss proposed bridge rail options.

Bill Saffian presented sketches of the proposed rails and discussed the differences between the rails on the sidewalk and the non-sidewalk sides. The ornamental rail will be attached to the back of the safety rail. The safety rail will consist of 3 galvanized bridge rails with the center rail being the larger one on the non-sidewalk side, while the top rail will be larger on the sidewalk side. Rather than a 4th bridge rail, as required on the sidewalk side, the circular tube of the ornamental rail will extend about one foot above the top rail. The bottom rail on the sidewalk side will only be 6 inches above the sidewalk, while the bottom rail will be higher on the non-sidewalk side.

Laura Black asked if the ornamental rails will be colored. David Scott answered that the safety rails will be galvanized to avoid the maintenance concerns with paint being scraped up or fading over time. Whether the bridge superstructure will be painted has not yet been determined. L. Black stated that the round top rail should retain their association with the rest of the ornamental rails and the bridge structure while the safety rails should be as unobtrusive as possible. Regarding

the ornamental rail balusters, L. Black asked if they could be designed to not extend beyond the safety rails. B. Saffian stated that the height of the balusters could be reduced to make it similar to the existing. L. Black asked that DHR be kept apprised of the color issue.

Franconia, 24497, X-A002(899)

Participants: Steve Hodgdon, Nicole Benjamin-Ma, Julie Whitmore, VHB; Christine Perron, Bob Juliano, NHDOT; Susan Retz, Consulting Party

Initial consultation to review the alternatives for the repair or replacement of state red-listed Bridge 089/099 carrying NH Route 18 over Lafayette Brook. The anticipated project includes: the repair or replacement of the bridge itself, potential realignment of nearby NH 141 at its intersection with NH 18, resurfacing of the approach roadways, ditch stabilizations, channel erosion repair, and thinning or pruning of trees along the NH 18 right-of-way to improve site distances.

- Steven Hodgdon opened the meeting at 9:30 am and provided an overview of the topics discussed at the Public Informational Meeting held in August 2014 in Franconia
- Notes from this meeting were distributed to attendees
- Steve mentioned that the bridge inventory has been completed and it was found to be eligible
- More information is required regarding the Lovett's Inn property to complete a determination of effect
- Preliminary design is underway to complete the Draft TS&L and VHB is considering two options: rehabilitation or replacement
- Steve then discussed the findings of the field inspection and concrete testing and explained that the superstructure cannot be saved since it is in poor condition
- The abutments are in good condition and may remain
- Steve directed the attendees to the aerial map provided to point out important features and identify the project location
- Site photos were also provided on a large board and Steve pointed out that all four existing parapet ends are blunt and need to be addressed to provide safer approaches
- Steve also provided an overview of the two options considered (superstructure replacement and bridge replacement) and compared the project impacts
- Steve turned the discussion over to Nicole Benjamin-Ma to discuss historic resources
- Nicole mentioned that the RPR and inventory form have been submitted and the bridge has been found eligible
- Nicole addressed four non-surveyed properties included in the RPR as being within the APE, including street views toward the project from these properties
- One of the properties had a photograph included in the RPR, and one property is land only (no buildings). Some assessor's information was available for the two remaining properties, but not all. Nicole will follow-up to determine the age of these two properties

- The Lovett's Inn was listed in the National Register in 1980, but the area was confined to <1 acre consisting of the footprint of the inn and the immediate area
- Charles Lovett Jr. completed the nomination for the National Register in 1978 and the National Register determined that the historic portion of the property should be limited to the inn only as the other buildings were relatively new
- As a result, we need to consider reevaluating the boundary of the property, and its significance
- Nicole provided a history of the inn, describing some of the previous owners and its transition from a farm property to an inn
- Nicole found a connection between the inn and architect David Fried as she discovered plans of the inn's properties that were completed by David Fried
- The properties do not appear to match the description of the plans, however, so the connection with David Fried may not be significant in the evaluation
- Nicole described two options in completing the research of the Lovett's Inn property:
 - Update the National Register
 - Complete the inventory form
- Nicole said that it was decided to move forward with the inventory form as we are unsure if the current owners would want to expand the historic property and who the owners may be during the completion of the updated listing
- It is likely, though, that the boundary will be updated to include the entire outline of the property that the Lovetts originally purchased
- Steve mentioned several concerns raised by the public during the public information meeting:
 - The stone fascia and arch façade were noted as important features to the public
 - Construction duration was important and could affect downtown businesses, as well as the inn during wedding season
- The current plan is to close the road to traffic and provide a signed detour on State routes
- A temporary bridge may be considered, but will add cost and construction time
- Steve described the progress of the project, which includes the completion of the Draft TS&L and another public information meeting to present the preferred alternative
- Before closing out the meeting, Steve mentioned that all handouts may be provided electronically as requested

Harts Location-Carroll 26162, X-A003(275)

Participants: Christine Perron, Chris Carucci, Jim Kirouac, NHDOT

Initial consultation to review alternatives associated with rehabilitation or replacement of 055/091. The structure consists of a concrete inlet, followed by three segments of corrugated metal pipe arch, and ending at a concrete energy dissipater. The total length of the structure, including the concrete inlet and energy dissipater, is approximately 1,000 ft.

Chris Carucci provided an overview of the project. This is a culvert repair project funded under the Federal Culvert Repair Program. The culvert is classified as a Bridge, and carries the headwaters of the Saco River under US Route 302. The culvert inlet is in the Town of Carroll, partly within the White Mountain National Forest and partly within the Conway Scenic Railroad right-of-way. The lower portion of the culvert is within the Town of Harts Location, partly with the highway right-of-way, railroad right-of-way, and Crawford Notch State Park. The Town Line is also the Carroll County/Coos County line.

The culvert is a corrugated metal plate arch originally constructed in 1958 without the inlet and outlet structures. In 1961, an emergency project constructed the existing concrete inlet and the energy dissipater at the outlet. The culvert length is approximately 950', with the alignment primarily under US Route 302. The culvert has less than 3' of cover for most of its length. The inlet is a complex concrete structure including retaining walls, a 5' x 16' opening and a transition section. The upper pipe segment is 137" wide x 87" high, 325' long, at 0.4% slope. The middle pipe segment is 103" wide x 71" high, 322' long at 3.9% slope. A smooth tapered concrete transition connects these segments. The lower pipe segment is 103" wide x 71" high, 276' long at 10% slope. A concrete energy dissipater is connected to the pipe outlet, which then flows to a very steep channel composed of ledge outcrops and boulders. Bridge inspectors detected corrosion in the top of the pipe in 2012, likely due to salt given that there is only one foot of cover over the pipe. The Bureau of Bridge Maintenance patched two locations in the summer of 2012, and recommended that a permanent repair project be initiated.

A number of design alternatives have been considered, including a spray-on mortar lining, a corrugated metal liner, and replacement in kind. The intention is to avoid any decrease in hydraulic capacity. The metal liner would reduce capacity of the structure since a smaller diameter pipe would be installed inside the existing structure. Also, the inlet structure is not high enough to allow enough space to install a metal liner.

A spray-on liner would be approximately 2-4" thick, but would be smooth rather than corrugated; therefore this option would not reduce the capacity of the pipe. The lining is structural rather than just a sealant. However, this lining is new technology that has been in use for only 10 years. There is some reluctance to try this lining at this location given its unproven service life and high cost. For this reason, replacement of the structure is being studied to determine if that is a more prudent alternative. The drawbacks of replacement include increased impacts to traffic and the surrounding area during construction. Replacement would likely require closing US Route 302 through the project area during the summer because of the trench size that would be necessary and because the ledge and railroad tracks on either side of the road do not allow for temporary widening.

All alternatives that have been studied to date would retain the existing inlet and outlet structures of the pipe. Christine Perron noted that coordination with the White Mountain National Forest and DRED has taken place and these agencies did not express any concerns with cultural resources. For these reasons, it is DOT's preference that an inventory form not be done for this structure at this time.

Laura Black asked if there was any in-house knowledge of the structure's history, such as why the elaborate inlet and outlet structures were constructed. C. Carucci noted that, while it's not known

for sure, it does appear that these structures were added after a flood event to alleviate capacity issues.

L. Black agreed that the Department could forgo doing the inventory form as long as the inlet and outlet structures would not be impacted. She would let the Department determine how to handle the effect determination without knowing if the structure is eligible for the National Register. It was noted that this structure was considered potentially eligible due to its unique inlet and outlet structures, which were constructed more than 50 years ago, and because the structure appeared to be designed to fit unique environmental constraints within an area that is rich in history.

L. Black asked if replacing an existing metal pipe with a new metal pipe would be a concern, given the corrosion that has occurred. C. Carucci said that a new metal pipe would have a membrane around the outside to protect it from salt. The existing metal pipe has lasted over 50 years, and adding a membrane should significantly extend the life of a new pipe. Jason Tremblay stated that the typical service life of a bridge is approximately 75 years.

Edna Feighner stated that she had no archaeological concerns. C. Carucci asked if there would be any concern with removing some of the rock outcrop that is located between the road and railroad if necessary. E. Feighner said there would be no concerns.

Pembroke 14477A, X-A000(414)

Participants: Don Lyford, Chris Carucci, Christine Perron, Jim Kirouac, NHDOT; David Jodoin, Town of Pembroke

Continued consultation on a project entailing the reconstruction of the intersection of US Route 3, Pembroke Hill Road, and Bow Lane. A No Historic Properties Affected memo was signed in August 2012. The purpose of this meeting will be to provide an update on the Department's recent request for the town to move the granite watering trough that is currently located near the corner of Pembroke Hill Road.

Chris Carucci provided a brief summary of the project. This is a Highway Safety Improvement project that will relocate Bow Lane to intersect with US Route 3 across from Pembroke Hill Road, signalize the intersection, and widen US Route 3 to the west to allow for a center turn lane. The project is scheduled to advertise on October 28, 2014. The purpose of meeting at this time is to discuss the granite watering trough that is located at the corner of Pembroke Hill Road. While the trough is not in direct conflict with proposed work, the utility company indicated that moving the trough approximately 20 feet would better facilitate the relocation of a utility pole. Don Lyford approached the town about this, and the town indicated a desire to move the trough to the town hall rather than risk potential future conflicts with the trough. The town is now in the process of getting estimates for the relocation of the trough, which will be a reimbursable expense through the project.

Laura Black commented that the trough should be moved by someone with knowledge of this type of structure. She also stated that it would be helpful to get input from the town on where exactly they are planning to locate the trough and why they would like it at the town hall. If the trough is, in fact, going to be moved to the town hall, then a small interpretive sign should accompany it to describe its historic location. If it is decided that the trough would be moved only 20 feet away

from its current location, then no sign would be necessary. D. Lyford agreed that a sign could be prepared as part of the intersection project if the trough is relocated.

David Jodoin, the Pembroke Town Administrator, joined the meeting following the above discussion. He stated that he has contacted a number of companies about relocating the trough but has not been able to get any estimates. The town had been interested in moving the trough to the town hall since it would be more visible in that location, and also because there was concern about the possibility of needing to move it more than once if it was left at the intersection. Another concern had been the possibility that the trough could block the line of sight at the intersection. D. Lyford responded that the trough could be moved just 20 feet away from its current location and remain there permanently. It would not be in the way during construction and would not block sight lines at the intersection. Based on that information, and because of the difficulty the town has had finding someone to move it, D. Jodoin stated that his preference then would be for the DOT contractor to move the trough 20 feet. D. Lyford agreed to this approach. Language would be added to the Prosecution of Work for moving the trough. This language should be reviewed by the Bureau of Environment to ensure that certain precautions are taken to avoid damage to the trough.

Rochester 27873, X-A003(650)

Participants: Michelle Marshall, Trent Zanes, NHDOT

Continued consultation following discussion at the initial Cultural Resources Agency Coordination meeting in November 2013. The project is directed at improvements for sight distance and safety at the south side of US Route 202 and the intersection of US Route 202 (Washington Street) and Estes Road, Rochester, New Hampshire. District 6 has repeatedly complained about the high accident rate at this intersection, however little could be done without impacting the southeast quadrant of the intersection, which has a concrete wall close to the ROW line and an extant historic residence. While the road is posted at 40 mph, traffic speeds through this area often above the legal posted limits and there have been 18 recorded accidents since 2002 due to impaired sight line for drivers turning onto Route 202 from Estes Road. The goal of this meeting was to come to a joint conclusion on an Effects determination and begin discussion of mitigation options.

The proposed improvements include tree clearing and the removal of a concrete wall and privately owned residence (65 Estes Road), as well as construction of a drainage swale and slope work. Given the location of the house, retaining wall, and associated dense shrubbery and trees, little can be done to improve sight distance without impacting the property. The owner of the property has proposed granting a permanent easement, in exchange for the removal of the house.

A NHDHR individual inventory form for the c. 1880 Willis O. Higgins House (65 Estes Road) was prepared in 2013 (Mausolf 2013). The structure was determined eligible for listing on the National Register of Historic Places in Oct 2013. Currently, it is unoccupied, and the City of Rochester (2013) noted the fieldstone foundation shows prominent signs of water infiltration and substandard and noncompliant mechanical, electrical and plumbing systems. In addition, a former tenant removed joists and there are bowed walls (12" out of plumb) in the ell. The result is an uninhabitable situation.

Laura Black indicated the project information that included the purpose and need statement and alternative analyses provided a more objective analysis that laid out specifics.

Trent Zanes reiterated that the property owner does not want the house and offered a permanent easement if DOT will conduct the house demolition.

Laura Black indicated as demolition would result in an adverse effect, mitigation could include use of the standing structure for educational purposes prior to demolition. This could be a unique opportunity for creative mitigation as the Rochester house is unique due to the knee wall Cape style. S. Charles will reach out to professors at Plymouth State University's historic preservation graduate program, such as Dr. James Garvin and Beth Muzzey. Jill Edelmann indicated that the blue house in Lancaster might also provide the same educational opportunity.

One major concern that will need to be resolved concerns student access/use and the question of liability. Laura Black indicated that some potential structural concerns, such as with the floor strength, might be resolved by shoring and use of I-beams. Trent Zanes stated we might consider consulting with a structural engineer, although NHDOT staff includes bridge engineers. Laura Black suggested other state offices, such as Public Works, might be willing to work with NHDOT. Trent Zanes indicated consultation with a structural engineer might be costly. We will bring District 6, as well as the landowner, into this conversation as they know the condition of the house. Trent Zanes will also investigate these issues.

Jill Edelmann asked about the project time table. Michelle Marshall indicated it was indeterminate.

Jill Edelmann indicated that if this mitigation action does not work out, we will consider other actions.

In the meantime, an adverse effect memo will be compiled.

Followup: An on-site meeting was scheduled with Dr. James Garvin, the landowner Dan Gilbert, and representatives from NHDOT District 6, Right of Way, and the Bureau of Environment.

Milford 29509 (no federal number)

Participants: Josif Bicja, Matthew Low, HTA; Gary Daniels , Rick Riendeau, Town of Milford; Steve Liakos, NHDOT

Continued consultation on the Jones Crossing Bridge over the Souhegan River (062/138) to review the alternative analyses and results of the public information meeting.

J. Bicja provided an overview and the table of contents of the Bridge Rehabilitation/Removal Alternatives Evaluation Study through a PowerPoint presentation. The study has been completed and submitted to the NHDOT Bureau of Environment for review and comment. He noted that the project was previously presented at the August 14, 2014 NHDOT Cultural Resources Agency Coordination Meeting and at that time it was discussed that the project would be split in two phases. Phase A of the project was to include the stabilization of the bridge and Phase B was to consist of either demolition, rehabilitation or removal for adaptive reuse of the bridge. Plans and specifications for Phase A of the project were prepared by Hoyle, Tanner and Bids were opened on August 26, 2014. The "A" bidder was 64% higher than the Engineer's Estimate of Probable Construction costs and the Town decided to not move forward with Phase A of the project. Shortly thereafter, the project was presented at the September 17, 2014 NHDOT Natural Resources Agency Coordination Meeting and at that time it was discussed to remove the bridge in one phase

in order to save costs. At that meeting it was concluded that an Alternative Evaluation Study should be completed.

The need of the project is to rehabilitate or remove the Jones Crossing Bridge due to its current condition. The bridge is in imminent failure condition and in danger of collapse. A sudden collapse would not only negatively impact the historic structure by permanently removing any historic value the resource retains, but would also produce substantial and potential permanent impacts to the natural resources in the area and cause potential severe injury or loss of life. The purpose of the project is to address this need by either rehabilitating or removing the failing structure while minimizing the environmental impacts.

Alternatives for rehabilitation/removal of the bridge were evaluated to determine the feasibility of each to meet the project purpose and need. The following alternatives were investigated:

- Alternative No.1 - “No-Build”
- Alternative No.2 - Bridge Rehabilitation in Current Location
- Alternative No.3 - Bridge Rehabilitation in New Location
- Alternative No.4 - Bridge Removal and Recycle
- Alternative No.5 - Bridge Stabilization with use of Permanent Piers

A rehabilitation/removal alternatives matrix was presented showing the advantages and disadvantages of each alternative. Based on the extent of the existing bridge deterioration, it was concluded that the preferred alternative is Alternative No.4 - Bridge Removal and Recycle. A typical portal/bridge section and bridge elevation was also shown with the proposed member replacements for Alternatives Nos. 2 and 3. The entire floor system, bottom chord and majority of the web truss members would need to be replaced due to their deteriorated condition. The work required in Alternative Nos. 2 and 3 would leave little historic fabric remaining after rehabilitation, therefore, most of the bridge trusses would be new in addition to the replacement of the floor system and deck. Removing and recycling the bridge is also the lowest cost alternative.

M. Low stated that the Town held a Public Informational Meeting on October 6, 2014 and the attendance was minimal with only one person attending. G. Daniels stated that the notice was posted on the Town website and the one person that attended agreed with the removal of the bridge. G. Daniels said that a second meeting is scheduled for Monday, October 20, 2014. L. Black asked that at the upcoming meeting the Town should convey the importance of the bridge and its history and share its significance with the public.

J. Edelmann stated that through her research of previous environmental documents/correspondence related to the project that bypassed the Jones Crossing Bridge, she found that the Section 106 finding was “No Effect” and that maintenance of the bridge would rest with the Town of Milford. On November 13, 1991, FHWA asked if other preservation actions related to the bridge were considered and why. NHDOT responded on November 18, 1991 that additional preservation measures were not discussed at any of the inter-agency meetings and that maintenance would reside with the Town. On December 13, 1991, the NH Division of Historical Resources, upon receipt of the November 13th letter, asked that the cost of demolishing the bridge be applied to “structural repairs, priming and painting or other preservation work”. This action was agreed to by NHDOT on January 29, 1992. Upon further investigation it was determined by NHDOT that painting the bridge would be too costly, relative to the cost of demolishing the bridge. Estimates to

paint the bridge exceeded \$250,000-300,000, whereas the cost to demolish the bridge was estimated between \$20,000-30,000. On July 29, 1992, NHDOT approached the Town with the possibility of rehabilitating the existing pipe rail on the bridge, along with possibly power washing the abutments, power vacuuming other parts of the superstructure and limited gusset plate rehabilitation, should the town allow pedestrian access on the bridge. On August 4, 1992 the Town responded that pedestrian access should be limited to the North River Road side only, and that any preservation enhancements were welcomed. On December 30, 1992, in a letter to the SHPO, it was confirmed that the Department had negotiated with the contractor to "replace the entire pipe rail system with a four black iron (2" diameter) rail system (painted green)... Other enhancements intended to extend the life of the structure (were) in the process of being completed. They included repairing the cross bracing and adding structural plates along the bottom cords of the structure. Cleaning of soil debris from both abutments (had) also been completed". The proposed actions regarding the preservation of the bridge were agreed to by all parties and were carried out.

E. Feighner said that the Town fell short on their responsibilities to maintain the bridge, noting there should be ramifications when Section 106 commitments are not kept. FHWA involvement will be required since they were involved with the bypass project in 1991.

L. Black stated that the "No Adverse Effect" finding was due to the commitment that the Town had to maintain the bridge. She also asked if federal funding will be used for the proposed project.

M. Low stated that currently the project will be funded through the State Aid Bridge Program and the Town and there will be no federal funds.

E. Feighner asked if a US Army Corps of Engineers (ACOE) permit would be required. M. Low answered "Yes." E. Feighner stated that since this is the case, then ACOE should take the lead with the Memorandum of Agreement (MOA). She asked to start developing an MOA with ACOE and to determine appropriate mitigation through community input. Mitigation could be commitment to preserve other type of historic bridges. G. Daniels stated that the Town has already set aside \$120,000 to maintain bridges throughout the Town. L. Black clarified that what was being suggested was to come up with a preservation plan for historic bridges, and not typical roadway bridges and culverts. M. Low said that the Town owns a historic pedestrian suspension bridge that spans the Souhegan River. The bridge is called the "Swing Bridge" and was constructed in 1889 by the Berlin Iron Bridge Company. There may be an opportunity for the Town to come up with a preservation plan for the Swing Bridge as mitigation for the removal of the Jones Crossing Bridge.

L. Black asked if the Town has coordinated with the Heritage Commission. G. Daniels said that he has personally coordinated with them as he is the Selectboard Liaison with that Commission.

J. Edelmenn asked to salvage the existing plaque on the north portal and to possibly mount it in a granite post on the north approach to the bridge. An Effect finding needs to be documented formally and it would be appropriate to now prepare an Effect Memo.

G. Daniels asked S. Charles to include him on the distribution list for any project correspondence and/or future meetings.